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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/537,785	03/29/2000	Yuta Aono	FUJII17,175	7257

7590

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EXAMINER

TSEGAYE, SABA

ART UNIT

PAPER NUMBER

2662

DATE MAILED: 01/08/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/537,785

Applicant(s)

AONO ET AL

Examiner

Saba Tsegaye

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16 is/are allowed.
- 6) ☒ Claim(s) 1-8, 12 and 13 is/are rejected.
- 7) ☒ Claim(s) 9-11, 14 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims 9, 10, 14 and 15 are objected to because of the following informalities: Claims 9 and 14 do not describe what "W" means. Claims 10 and 15 do not describe what "Nmax" means. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider et al. (US 6,477,238) in view of Wei et al. (US 6,515,967).

Schneider discloses, in Figs. 3 and 4, an order wire monitoring method for monitoring a quality of an order wire line which couples a plurality of an order wire lines which couples a plurality of transmission apparatuses (CO test unit 165; CP test unit 265) via multiplexing lines which multiplex and transmit main and order wire signal, comprising the steps of:

specifying a transmission apparatus (CO test unit 165) which is to transmit test data as a specified transmitting apparatus (CO test unit 165), and a transmission apparatus which is to receive test data as a specified receiving apparatus (CP test unit 265) (column 15, line 54-column 16, line 8);

transmitting the test data from the specified transmitting apparatus to the order wire line in response to a start of test (column 16, lines 9-26);

receiving and temporarily storing the test data in the specified receiving apparatus (CP test unit 265; column 15, lines 18-31; column 16, lines 41-52);

transmitting to the specified transmitting apparatus one of the stored received test data, analyzed data of the received test data, and judgment data indicative of a judgment result of a comparison of the analyzed data and threshold values, after a predetermined time or at a specified time (column 15, lines 18-31; column 16, lines 41-65); and

monitoring, in the specified transmitting apparatus, the quality of the order wire line between the specified transmitting apparatus and the specified receiving apparatus (column 16, line 53-column 17, line 36).

However, Schneider does not disclose remotely monitoring in a monitoring control terminal, a quality of the order wire line between a specified transmitting apparatus and a specified receiving apparatus.

Wei teaches, in Fig. 2, MRM testers 113, 115, 119, 121 or 123 and MRM manager client terminal 203. Among the MRM testers, a device that originates MRM test data packets is referred to as a test sender TS; and a device that receives MRM test data traffic and collecting receiver statistics is referred to as test receiver TR. The test receiver can tell the MRM manager what type of fault is occurring, thereby providing more granularity in the testing.

It would have been obvious to one ordinary skill in the art at the time the invention was made to add a monitoring control terminal that remotely monitors the quality of the order wire line between a specified transmitting apparatus and a specified receiving apparatus, such as that suggested by Wei, in the technique for measuring the performance of wire pairs of Schneider in order to determine which device or cable causing a fault with out sending a maintenance or service person to each transmission apparatus.

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3. Claims 1-6, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over The Admitted Prior Art (Fig. 2) in view of Schneider et al. '238 and Wei et al. '967.

The Admitted Prior Art discloses, in Fig. 2, a transmission apparatus comprising: a mux/dmux section, an order wire section, a codec section, a branching and combining section, and a 2-wire/4-wire converter.

However, the Admitted Prior Art does not disclose **a monitoring processor and an order wire monitoring controller**, the order wire mentoring controller controlling transmission of test data stored in the storage section to an order wire line, controlling storage of test data received via the order wire line to the storage section, and controlling transmission and reception of one of the received test data, analyzed data of the received test data and judgment data indicative of a judgment result of a comparison of the analyzed data and threshold values (as in claims 1, 2, 4, 5, 12 and 13). Further, the Admitted Prior Art does not disclosed controlling a loop-back transmission of the audio data stored in the storage section to a transmitting source, in response to a lapse of a predetermined time or a transmission instruction (as in claims 3, 6, 12 and 13).

Schneider teaches a system for testing a line of a communication network for a digital subscriber line service. Further, Schneider teaches a test unit coupled to the receiving end of the transmission line; a storage device stores sets of threshold values for a number of services; and a processor process a set of samples for a test waveform corresponding to a selected one of the digital subscriber line services and processes the captured digital samples and compares to a selected set of threshold values (column 7, lines 4-49) (as in claims 1, 2, 4, 5, 12 and 13).

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Further, Schneider teaches a loop verification system for an ADSL communication system. The modem 193 enables the test equipment to send and receive test control data over the line 300 to and from the test equipment 265 (claimed controls a loop-back transmission of the data stored in the storage section in response to a transmission instruction) (column 15, lines 46-53; column 14, lines 11-17) (as in claims 3, 6, 12 and 13).

It would have been obvious to one ordinary skill in the art at the time of the invention was made to add a monitoring processor and an order wire monitoring controller, such as suggested by Schneider, in the order wire section of the Admitted Prior art in order to enable testing and maintenance of in-service lines (column 4, lines 53-58).

The Admitted Prior Art and Schneider discloses all the claim limitations as stated above, except for remotely monitoring in a monitoring control terminal, a quality of the order wire line between a specified transmitting apparatus and a specified receiving apparatus (as in claims 1-4).

Wei teaches, in Fig. 2, MRM testers 113, 115, 119, 121 or 123 and MRM manager client terminal 203. Among the MRM testers, a device that originates MRM test data packets is referred to as a test sender TS; and a device that receives MRM test data traffic and collecting receiver statistics is referred to as test receiver TR. The test receiver can tell the MRM manager what type of fault is occurring, thereby providing more granularity in the testing.

It would have been obvious to one ordinary skill in the art at the time the invention was made to add a monitoring control terminal that remotely monitors the quality of the order wire line between a specified transmitting apparatus and a specified receiving apparatus, such as that

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suggested by Wei, in the technique for measuring the performance of wire pairs of the Admitted Prior Art in view of Schneider in order to determine which device or cable causing a fault without sending a maintenance or service person to each transmission apparatus.

4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider et al. '238 in view of Wei et al. '967 as applied to claim 7 above, and further in view of the Admitted Prior Art.

Schneider in view of Wei discloses all the claim limitations as stated above. Further, Schneider suggests that the inventive method may be applied to lines of a variety of telecommunications networks that carry digital data services.

However, Schneider does not expressly disclose A/D converter.

The Admitted Prior art teaches, in Fig 2, converting DTMF signal into digital signal (CODEC 75).

It would have been obvious to one ordinary skill in the art at the time of the invention was made to add a A/D converter, such as suggested by the Admitted Prior art, in the system of Schneider in order to provide a system for testing lines of a variety of telecommunications networks.

Allowable Subject Matter

5. Claim 11 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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6. Claims 9, 10 and 15 would be allowable if rewritten to overcome the objection in this Office action and to include all of the limitations of the base claim and any intervening claims.
7. Claim 14 would be allowable if rewritten or amended to overcome the objection set forth in this Office action.
8. Claim 16 is allowed.

Response to Arguments

9. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saba Tsegaye whose telephone number is (703) 308-4754. The examiner can normally be reached on Monday-Friday (7:30-5:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (703) 305-4744. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

ST

December 22, 2003


JOHN PEZZLO
PRIMARY EXAMINER